

WHAT IS CLAIMED IS:

1. A probe holder comprising:  
means for holding a probe said probe having a detecting end, and means for providing a gas to the probe detecting end to clear moisture or contaminants from the detecting end for accurate detection.
2. The probe holder of claim 1, said means for providing a gas being operably disposed in said means for holding the probe, and said means for providing a gas being formed with at least one orifice juxtaposed to the probe detecting end with the probe in the holder.
3. The probe holder of claim 2, wherein each orifice has a central axis and the means for holding the probe has a central axis, and wherein each orifice central axis is transversely disposed to the means for holding the probe central axis.
4. The probe holder of claim 2, said means for holding the probe comprises an abutment whereby the probe is held against the abutment in a predetermined position so that the said one orifice is operably juxtaposed to the probe detecting end.
5. The probe holder of claim 1, further comprising means for mounting the means for holding the probe to the wall of a vessel.
6. The probe holder of claim 1, said means for providing a gas further comprises a manifold for distributing said gas in several directions to the probe detecting end.
7. The probe holder of claim 2, comprising a plurality of said orifices, and said means for providing a gas comprises manifold means for distributing the gas to the orifices.
8. The probe holder of claim 2, further comprising a plurality of circumferentially disposed orifices for providing the gas to clear the probe detecting end.
9. The probe holder of claim 1, said means for holding the probe comprising a plurality of inter-engaged components in integral construction.
10. The probe holder of claim 9, said inter-engaged components forming a central orifice for slidably receiving the probe.
11. In combination:  
a probe, said probe having a proximate end and a distal end, said distal end comprising means for detecting a substance, and a holder having means for holding the probe so that the probe is disposed in a predetermined position in the holder, and means for providing a gas to the distal end of the probe to clear the means for detecting for accurate detection of the substance.
12. The combination of claim 11, said means for detecting a substance comprising means for infra red detection of moisture.
13. The combination of claim 11, said holder further comprising means for seating the probe in the holder.

14. The combination of claim 11, further comprising means for mounting the combination in a process vessel wall.

15. The combination of claim 11, said combination further comprising a process vessel having a wall, and wherein said holder is mounted in said wall so that the probe distal  
5 end is operably facedly disposed with respect to the material containing the substance to be detected.

16. A system for the accurate detection of moisture content in a process material, comprising, a probe having a detecting end for detecting moisture in a process material, and means for providing a gas to the probe detecting end to clear the probe detecting end of  
10 unwanted moisture disposed on the detecting end for accurate process material moisture content determination.

17. The system of claim 16, wherein the process material is a pharmaceutical process material.

18. The system of claim 17, wherein the gas comprises one selected from air,  
15 nitrogen and an inert gas.

19. A method for making accurate detection probe readings comprising:

(a) providing a probe having a detecting end;

(b) providing a holder for holding the probe so that the probe is held in a predetermined position, said holder comprising an orifice for gas flow; and

20 (c) providing a gas through the orifice to the probe detecting end to clear the probe detecting end for an accurate probe reading.

20. The method of claim 19, wherein the probe detects moisture.

21. The method of claim 19, wherein step (b) further comprises providing the gas transversely to the probe detecting end.

25 22. The method of claim 19, wherein step (b) further comprises providing the gas intermittently between readings.

23. The method of claim 19, further comprising mounting said holder and probe in the wall of a pharmaceutical process vessel.

24. The method of claim 23, said pharmaceutical process vessel comprises a  
30 dryer, said substance comprises moisture, and said gas comprises one selected from air, nitrogen and an inert gas.

25. The method of claim 19, wherein step (c) further comprises providing the gas at a first pressure, and then immediately prior to the probe reading, providing the gas at a second pressure higher than the first pressure.

35 26. The method of claim 25, wherein the first pressure is no more than about 10 psi and the second pressure is at least about 10 to 45 psi.